

REMARKS

Claims 37, 42-46 and 58 are currently amended. Claims 61-82 are new. Reconsideration of the application in view of the amendments above and following remarks is requested.

I: The Rejection of Claims 37-60 under 35 U.S.C. 112, 1st Paragraph (Written Description)

Claims 37-60 are rejected under 35 U.S.C. 112 as allegedly lacking written description support. The Examiner alleges that the claims lack written description support for any sequence having at least 60%, 90%, 95% or 97% to SEQ ID NO:2. This rejection is respectfully traversed.

Initially, Applicants note that the 60% limitation is currently amended. Reconsideration is urged.

The written description requirement of the Patent Code is fulfilled when the patent specification describes the claimed invention in sufficient detail such that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See *Vas-Cath, Inc. v. Mahurkar*, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991). The written description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption. See *In re Marzocchi*, 169 USPQ 367 (CCPA 1971).

Under this standard, the Examiner's conclusion that the specification discloses a single nucleic acid sequence set forth in SEQ ID NO:1 that encodes an orotate transporter as set forth by the amino acid sequence of SEQ ID NO:2 is plainly incorrect. The specification discloses, and one skilled in the art would clearly recognize, that the scope of the present invention includes an amino acid sequence at least 90% identical to SEQ ID NO: 2. Examples of variants falling within the scope of the claimed invention include polypeptides having conservative amino acid substitutions in the amino acid sequence of SEQ ID NO:2, which are clearly envisioned by an artisan once apprised of Applicants' invention. See for example page 14 which clearly explains that modifications can be made outside the regions critical to the function of the molecule and still result in an active polypeptide. Accordingly, an artisan would reasonably conclude that Applicants were not only in possession of the polypeptides having the amino acid sequence of SEQ ID NO:2, but also that Applicants had possession of highly related sequences, as specified by the claims. Indeed, based on the high level of skill in the art, the phrase "an amino acid sequence at least 90% identical to SEQ ID NO: 2" itself conveys to the artisan that Applicants were in possession of the claimed invention.

Notwithstanding the above, the Examiner has not provided sufficient evidence or reasoning to rebut that the specification provides an adequate written description for highly homologous sequences claimed. In this regard, the Examiner contends that a number of additional representative species are required to be disclosed. However, given the high degree of identity recited in the claims, an

extremely high degree of predictability exists as to the structure and function of sequences falling within the claims.

Therefore, Applicants respectfully submit that the specification contains a sufficient description of the structural and functional characteristics of the claimed sequences to fulfill the requirements of 35 U.S.C. 112. Reconsideration and withdrawal of the rejection are therefore respectfully requested.

II: The Rejection of Claims 37-60 under 35 U.S.C. 102(b)

Claims 37-60 are rejected under 35 U.S.C. 102(b) as allegedly anticipated by Bolotine. All independent claims are currently amended. Reconsideration is urged.

III: New Claims

New claims 61-82 are added. No new matter is added. Should any additional fees be due, the USPTO is authorized to charge the deposit account of Novozymes North America, Inc. 50-1701.

IV. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

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